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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,297	11/19/2003	Richard P. Schmidt	2039.015700/SAW (210051)	6475

37774 7590 06/01/2005

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EXAMINER	
THEXTON, MATTHEW	

ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/717,297	SCHMIDT ET AL.	
	Examiner	Art Unit	
	Matthew A. Thexton	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *seven sheets*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statements (IDS) submitted on 2004 March 4 and 2005 April 22 are being considered by the examiner.

Citations appearing on both forms have been lined through on the later filed form. In cases where "corrected version" documents were submitted, these were considered.

Specification

The disclosure is objected to because of the following informalities:

At line 3 of page 3, behenates are said to be "alternatively called docosenates." This is thought to be in error. Docosenates are unsaturated carboxylates. Docosanates are equivalents to behenates; saturated carboxylates.

Appropriate correction is required.

Claims Analysis

Claims 1-20 are directed to oxygen scavenging mixtures comprising at least one metal catalyzed oxidizable organic compound, and at least one transition metal carboxylate comprising between 20 and 30 carbon atoms for each carboxylate group.

Dependent claims 2-20 further limit the carboxylate or the oxidizable organic compound to various subgenera or specie.

Claim 40 is directed to oxygen scavenging mixtures comprising at least one of four types of polymers, and at least one of cobalt behenate or cobalt arachidate.

Claims 21-39 are directed to packaging article comprising an oxygen scavenging layer comprising a mixture corresponding to the oxygen scavenging mixture of claim 1.

Dependent claims 22-39 further limit the carboxylate or the oxidizable organic compound to various subgenera or specie, or further comprises an oxygen barrier layer (claims 36 and 37), or specifies semi-rigid or rigid layer or multilayer configurations (claim 38), or specifies the layer is at least one of a liner, coating, sealant, gasket, adhesive insert, non-adhesive insert, or fibrous mate insert (claim 39).

Claim 41 is directed to packaging article comprising an oxygen scavenging layer comprising oxygen scavenging mixtures comprising at least one metal catalyzed oxidizable organic compound, and at least one of cobalt behenate or cobalt arachidate.

Claim 42 depends from claim 41 and is limited to an oxidizable organic compound comprising at least one of four types of polymers.

Claim 43 is directed to packaging article comprising an oxygen scavenging layer comprising at least one metal catalyzed oxidizable organic compound, and a second adjacent layer comprising at least one transition metal carboxylate comprising between 20 and 30 carbon atoms for each carboxylate group.

Claim 44 is directed to packaging article comprising an oxygen scavenging layer comprising at least one metal catalyzed oxidizable organic compound, and a second adjacent layer comprising at least one of cobalt behenate or cobalt arachidate.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-43 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-41 of copending Application No. 10/940007. Although the conflicting claims are not identical, they are not patentably distinct from each other because each employs the combination of cobalt behenate or cobalt arachidate with oxidizable polymers.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

35 USC § 102 and 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections

Claims 1-3, 6, 11, 13-25, 28-39 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ching et al. (US 6437086-B1).

The present claims are broadly discussed hereinabove in the section ***Claims Analysis*** which is incorporated by reference.

The reference '086 discloses polymeric transition metal salts in which the carboxylate repeat unit may contain up to C40 branched alkyl or alkenyl, thus being encompassed by Applicant's claims. The features of the noted claims are disclosed within the four corners of the reference (column 2, lines 48-65, column 4, lines 1-38, column 7, lines 34-51, column 7, lines 57-67, column 8, lines 1-6, claim 48).

Should it be concluded that the suggested variations of the reference are not of sufficient specificity to constitute anticipation, then it is asserted that it would have been

obvious to one of ordinary skill in the art at the time of the invention to follow the plain suggestions in the reference to arrive at subject matter encompassed by Applicant's claims.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ching et al. (US 6437086-B1) as applied to claim 1 above, and further in view of Ching et al. ("Tasteless Oxygen Scavenging Polymers").

Reference '086 is discussed above. This reference fails to disclose oxidizable organic compounds as set forth in claim 12; carotene, ascorbic acid, squalene, or dehydrated castor oil.

"Tasteless..." discloses oxygen scavenging systems identical to those in reference '086 and further discloses sacrificial oxidizable organic compounds known in the art include ascorbic acid, squalene, and unsaturated fatty acids (page 2, second from last full paragraph). It would have been obvious to one of ordinary skill in the art at the time of the invention to employ these well known, albeit earlier technology, oxidizable organic compounds in combination with the newer polymeric transition metal salts disclosed in '086 because of the similarity of function and with a reasonable expectation of success, thus arriving at the subject matter encompassed by this claim.

Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ching et al. (US 6437086-B1) as applied to claim 1 above, and further in view of Katsumoto et al. (US 5776361-A).

Reference '086 is discussed above. This reference fails to disclose separate adjacent layers for the at least one metal catalyzed oxidizable organic compound, and the at least one transition metal carboxylate comprising between 20 and 30 carbon atoms for each carboxylate group. .

Reference '361 discloses such an arrangement for a polyterpene oxidizable compound and a transition metal carboxylate such as cobalt oleate and others (claims 17-25). It would have been obvious to one of ordinary skill in the art at the time of the invention to employ this known, albeit earlier technology, in combination with the newer polymeric transition metal salts disclosed in '086 because of the similarity of function and with a reasonable expectation of success, thus arriving at the subject matter encompassed by this claim.

Claims 1-6, 9-11, 13-25, 27-43 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yang et al. (US 6818151-B2).

The applied reference has a common inventor and assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not

claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

The present claims are broadly discussed hereinabove in the section ***Claims Analysis*** which is incorporated by reference.

The reference '151 discloses C20 alkanoate transition metal salts, which encompassed cobalt arachidate, thus being encompassed by Applicant's claims. The features of the noted claims are disclosed within the four corners of the reference (column 4, lines 1-48, column 6, lines 1-17, column 10, line 49 to column 11, line 15, column 14, lines 15-36).

Should it be concluded that the suggested variations of the reference are not of sufficient specificity to constitute anticipation, then it is asserted that it would have been obvious to one of ordinary skill in the art at the time of the invention to follow the plain suggestions in the reference to arrive at subject matter encompassed by Applicant's claims.

Claims 1-5, and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Himeshima et al. (US 2002/0153512-A1).

The present claims are broadly discussed hereinabove in the section ***Claims Analysis*** which is incorporated by reference.

The reference discloses cobalt tall oil salt plus soybean oil as oxygen scavenging mixtures. Tall oil comprises abietic acid which has the formula C20 H30 O2. See example 7.

Claims 1-5, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 4908151).

The present claims are broadly discussed hereinabove in the section ***Claims Analysis*** which is incorporated by reference.

The reference discloses oxygen scavenging mixtures comprising A1 plus B1 such as transition metal salt such as arachidonic acid, or A2 mixtures of unsaturated fatty acids and metallic salts of unsaturated fatty acid such as arachidonic acid (column 2, lines 11-26, column 3, lines 1-12, column 4, lines 56-66). It would have been obvious to one of ordinary skill in the art at the time of the invention to follow the plain suggestions in the reference to arrive at subject matter encompassed by Applicant's claims.

Claims 1-5, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al. (US 6248258-B1).

The present claims are broadly discussed hereinabove in the section ***Claims Analysis*** which is incorporated by reference.

The reference discloses cobalt or manganese tall oil fatty acid salt plus unsaturated organic compound as oxygen scavenging mixtures. Tall oil comprises abietic acid which has the formula C20 H30 O2 (claims 1-3). See example 2.

Claims 1-5, 11-13, 15, 21-24, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bansleben et al. (WO 97/32925-A1).

The present claims are broadly discussed hereinabove in the section ***Claims Analysis*** which is incorporated by reference.

The reference discloses films comprising oxygen scavenging mixtures comprising unsaturated hydrocarbon and transition metal salt catalyst (page 2, last paragraph to page 7, partial paragraph). The transition metal salt may be tallate (page 6, line 23). Tall oil comprises abietic acid which has the formula C20 H30 O2. oxidizable compounds suggested include squalene and polybutadiene (page 3, lines 15-27). It would have been obvious to one of ordinary skill in the art at the time of the invention to follow the plain suggestions in the reference to arrive at subject matter encompassed by Applicant's claims.

Citation of Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Speer et al. (US 539928A) is cited to further show the state of the art.

Speer et al. (US 5942297) is cited to further show the state of the art, especially noted is the application of oxygen scavenging mixtures for adhesive and non-adhesive inserts, sealants, gaskets, and fibrous mate inserts (claim 3).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew A. Thexton whose telephone number is 571-272-1125. The examiner can normally be reached on Monday-Friday, 9:30 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasudevan S. Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. A. Thexton

Matthew A. Thexton
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Art Unit 1714